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Title of the master thesis: Evaluation of selective voluntary muscle control in children with spastic cerebral palsy. Impact on the severity of spasticity and gross motor function level.

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Abstract: This thesis should provide comprehensive information about pathophysiological mechanisms underlying spasticity and spastic movement disorder with special attention to children with cerebral palsy. Spasticity and selective voluntary motor control assessment possibilities will be summarized. Classification systems of the gross motor functions (levels of locomotion) are also mentioned. The main objective is to elaborate selective motor control ability scale (IP) which is newly proposed in this study. The need for such instrument and its feasibility for clinical practice intend to be confirmed. The level of locomotion of 25 children with spastic cerebral palsy is compared with IP outputs, spasticity measurement outputs using Ashworth scale respectively.

Keywords: spasticity, selective voluntary motor control, locomotion, scale